UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/912,401	07/26/2001	Jose Kolencheril Raphel	1763.0140000	4249

69665 7590 04/09/2007	
CHOATE, HALL & STEWART / CITRIX SYSTEMS, INC. TWO INTERNATIONAL PLACE BOSTON, MA 02110	EXAMINER
	STRANGE, AARON N

ART UNIT	PAPER NUMBER
2153	

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	04/09/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

PTOL-90A (Rev. 10/06)

	Application No.	Applicant(s)
Office Action Summary	09/912,401	RAPHEL ET AL.
	Examiner	**Art Unit**	
	Aaron Strange	2153	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>*11 January 2007*</u>.

2a)☒ This action is **FINAL.**   2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *34-63* is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *34-63* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All   b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☐ Information Disclosure Statement(s) (PTO/SB/08)
    Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____ .

5)☐ Notice of Informal Patent Application

6)☐ Other: _____.

DETAILED ACTION

Response to Arguments

1.   Applicant's arguments, see pages 8-9 of the Remarks filed 1/11/2007, with

respect to the rejection(s) of claim(s) 34 and 49 under 35 U.S.C. 103 have been fully

considered and are persuasive. Therefore, the rejection has been withdrawn.

However, upon further consideration of the newly added limitations, a new ground(s) of

rejection is made in view of Allan, set forth below.

Claim Rejections - 35 USC § 103

2.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set
> forth in section 102 of this title, if the differences between the subject matter sought to be patented and
> the prior art are such that the subject matter as a whole would have been obvious at the time the
> invention was made to a person having ordinary skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the manner in which the invention was made.

3.   Claims 34-39,45-54 and 60-63 are rejected under 35 U.S.C. 103(a) as being

unpatentable over Cherkasova et al. (US 6,360,270) in view of Allan (US 7,024,477).

4.   With regard to claim 34, Cherkasova discloses a method for maximizing

throughput while avoiding overload of one or more servers, the method comprising the

steps of:

transmitting, by an interface unit, client requests to a server to maintain

performance of server throughput within a predetermined threshold range (at least Col

5, Lines 51-57);

intercepting, by the interface unit, a request from a client to open a transport later

connection with the server (at least Col 4, Lines 15-16);

buffering the intercepted request in a queue (at least Col 4, Lines 21-25); and

transmitting, by the interface unit, the buffered request to the server upon the

interface unit determining that the performance of server throughput is within the

predetermined threshold range (accepted messages are sent to the server if there are

sufficient resources) (at least Col 4, Lines 43-44).

Cherkasova fails to specifically disclose monitoring responses to client requests

intercepted by the interface unit to determine if the performance of the server exceeds

the predetermined threshold range.

Allan discloses a similar system for monitoring web servers. Allan teaches

monitoring client requests intercepted by an interface unit to determine if the

performance of the server exceeds a predetermined threshold (at least Col 5, Lines 29-

67). This would have been an advantageous addition to the system disclosed by

Cherkasova since it would have allowed the interface unit to determine the performance

information of the servers without polling them or requiring them to determine their own

performance information.

Therefore, it would have been obvious to one of ordinary skill in the art at the

time the invention was made to monitor responses to client requests intercepted by the

interface unit to determine the performance of the server. This would have provided

status information for the servers without increasing the load on the servers by polling

them or requiring them to determine their own performance statistics.

5.   With regard to claim 35, Cherkasova further discloses that the predetermined

range comprises one of a maximum threshold range or an optimal threshold range for

server throughput (sessions are dropped/allowed based on the threshold to maintain an

optimal load)(at least Col 5, Liens 51-57).

6.   With regard to claim 36, Cherkasova further discloses that the predetermined

threshold range comprises a first threshold at a lower point in the predetermined

threshold range and a second threshold at a higher point in the predetermined threshold

range, the first threshold represents one of a faster response time (at least Col 7, Lines

46-51), a lesser number of users, or a greater number of connections (less refused

connections)(at least Col 4, Lines 8-11) that the second threshold (at least Col 5, Lines

51-57).

7.   With regard to claim 37, Cherkasova further discloses transmitting, by the

interface unit, client requests to the server to maintain performance of a server

throughput one of at or near the first threshold (at least Col 5, Lines 51-57).

8.   With regard to claim 38, Cherkasova further discloses determining, by the

interface unit, the performance of the server throughput based on monitoring one or

more of: the number of active connections opened to the server (at least Col 7, Lines

46-51), the response time of the server, the rate at which the response time is changing,

and the intercepted request (request is monitored to see if ti is accepted)(at least Col 4,

Lines 7-12).

9.   With regard to claim 39, Cherkasova further discloses determining, by the

interface unit, the performance of the server throughput based on a first portion of

server resources available to service existing clients and a second portion of server

resources available to accept new clients (new sessions are rejected once utilization

exceeds a threshold, showing that the service level is unsatisfactory)(at least Col 5,

Lines 51-57).

10. · With regard to claim 45, Cherkasova further discloses determining, by the

interface unit, the performance of server throughput by one of a number of requests

pending at the server or server error/overload messages from the server (session

refusals)(at least Col 4, Lines 7-12).

11.   With regard to claim 46, Cherkasova further discloses establishing, by the

interface unit, the transport layer connection with the client in response to request from

the client (new session is created for the requests) (at least Col 4, Lines 38-42).

12.   With regard to claim 47, Cherkasova further discloses opening, by the interface unit, a second transport layer connection to the server if there is not a free transport layer connection to the server (new sessions are created for requests not associated with an existing session) (at least Col 4, Lines 36-42).

13.   With regard to claim 48, Cherkasova further discloses opening, by the interface unit, a second transport layer connection to the server if the queue comprises one or more requests from a second client (new sessions are created for each client request not associated with an existing session)(at least Col 4, Lines 36-42).

14.   Claims 49-54 and 60-63 are rejected under the same rationale as claims 34-39 and 45-48, since they recite substantially identical subject matter. Any differences between the claims do not result in patentably distinct claims and all of the limitations are taught by the above cited art.

15.   Claims 40,41,55 and 56 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cherkasova et al. (US 6,360,270) in view of Allan in further view of Phaal (US 6,006,269).

16.   With regard to claim 40, while the system disclosed by Cherkasova and Allan shows substantial features of the claimed invention (discussed above), it fails to

specifically disclose identifying a preferred client value for the request of the client, and

determining the position of the client request in the queue based on the preferred client

value.

Phaal teaches identifying a preferred client value (priority status) for the request

of a client, and determining the position of the client request in the queue based on the

preferred client value (priority status requests are handled before any other requests)(at

least Col 8, Line 66 to Col 9, Line 50). This would have been an advantageous addition

to the system disclosed by Cherkasova and Allan since it would have allowed different

client requests to be prioritized, ensuring that all requests are handled in a timely

manner.

Therefore, it would have been obvious to one of ordinary skill in the art at the

time the invention was made to identify a preferred client value and determine the

position of the client request in the queue based on the preferred client value in order to

prioritize previously deferred requests and ensure that they are handled in a timely

manner.

17.   With regard to claim 41, Phaal further discloses determining, by the interface

unit, the preferred client value, from one or more of the internet address of the client

request, the port number of the client request, by a header related to the client request,

by previous requests from the client of the client request, and by a cookie related to the

client request (cookie) (at least Col 10, Lines 3-21).

18.   Claims 55 and 56 are rejected under the same rationale as claims 40 and 41,
since they recite substantially identical subject matter. Any differences between the
claims do not result in patentably distinct claims and all of the limitations are taught by
the above cited art.

19.   Claims 42-44 and 57-59 are rejected under 35 U.S.C. 103(a) as being
unpatentable over Cherkasova et al. (US 6,360,270) in view of Allan in further view of
Shabtay et al. (US 2002/0120743).

20.   With regard to claims 42 and 43, while the system disclosed by Cherkasova and
Allan shows substantial features of the claimed invention (discussed above), it fails to
specifically disclose pooling a plurality of transport layer connections or multiplexing
client requests via the pooled connections.

        Shabtay teaches pooling connections and multiplexing client requests via the
pooled connections (at least ¶47). This would have been an advantageous addition to
the system disclosed by Cherkasova and Allan since it would have reduced the load on
the server in handling transport layer connections (at least ¶10).

        Therefore, it would have been obvious to one of ordinary skill in the art at the
time the invention was made to pool connections and multiplex client requests over the
pooled connections since it would have reduced the load on the server.

21.   With regard to claim 44, Shabtay further discloses closing, by the interface unit, transport layer connections to the server to bring performance of server throughput within the predetermined threshold range (at least ¶34).

22.   Claims 57-59 are rejected under the same rationale as claims 42-44, since they recite substantially identical subject matter. Any differences between the claims do not result in patentably distinct claims and all of the limitations are taught by the above cited art.

Conclusion

23.   Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

24.   Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Aaron Strange whose telephone number is 571-272-

3959. The examiner can normally be reached on M-F 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Glen Burgess can be reached on 571-272-3949. The fax phone number for

the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the

Patent Application Information Retrieval (PAIR) system. Status information for

published applications may be obtained from either Private PAIR or Public PAIR.

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you have questions on access to the Private PAIR system, contact the Electronic

Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a

USPTO Customer Service Representative or access to the automated information

system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

AS
3/20/2007

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